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Date: Monday, 6/18/2007 3:23:45 PM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : ARMOR SHIELD  
 Job Number : 32929  
 Estimate Number : 12369  
 P.O. Number : N/A Part Number : D412664203A  
 This Issue : 6/18/2007 S.O. No. : N/A Drawing Number : DSI9326  
 Prsht Rev. : NC Project Number : N/A  
 First Issue : N/A Type : LANDING GEAR Drawing Revision : A  
 Previous Run : 32914 Material : N/A  
 Due Date : 7/15/2007 Qty: 1 Um: Each  
 Written By : JD 07.06.18  
 Checked & Approved By : JD 07.06.18  
 Comment : Est Rev: A New Issue 06-04-19 JLM  
 est rev. B Per ECN 886 06.12.08 EC

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: Photocopy bluefile & type labels per PPP D412-664-203A CHG004 ✓

2.0 D412664203 Crosstube Aft High



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

~~At End~~ Crosstube  
 Batch: 30425 RT 07-07-24

3.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Remove tube from packaging

2-Apply Armor shield as per DSI 9326

A/R Armor Shield Batch: M104994 RT 07-07-24

4.0 QC14 INSPECT SPRAY PAINT



Comment: Inspect Spray Paint

ED 07/07/25 (X)

5.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-664-203A

Location:

PPP Rev: DART 07/7/25-E

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/07/26  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 6/18/2007 3:23:45 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ARMOR SHIELD

Job Number: 32929

Part Number: D412664203A

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC21

FINAL INSPECTION/W/O RELEASE



①

Comment: FINAL INSPECTION/W/O RELEASE

207/07/26

Job Completion



U 07-07-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**

DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>J.J.</i>	APPROVED <i>J.J.</i>	DRAWING NO. DSI 9326	REV. A SHEET 1 OF 1
DATE 06.02.14		TITLE ARMOR SHIELD	SCALE NTS
A	06.02.14	NEW ISSUE	

## DART SERVICE INSTRUCTION

To further protect Dart crosstubes from mechanical damage in service, they may be treated with "Armor Shield" surface treatment.

INSTALLATION	CANADIAN STC	FAA STC
D205-596-101/-103/-105/-107	SH03-6	SR01742NY
D212-664-101/-201	SH01-9	SR01298NY
D412-664-203		
D206-667-101/-103/-201/-203	SH01-5	SR01304NY
D407-667-105/-205		
D058-676-101/-201	N/A	SR01018SE

To designate crosstubes with 'Armor Shield' add 'A' to the Part Number. For example, D206-667-101A is a D206-667-101 crosstube coated with Armor Shield. It is acceptable to apply the Armor Shield in regions shown in Figure 1 only. It is **NOT** acceptable to apply Armor Shield in the cuff and support/clamp regions.

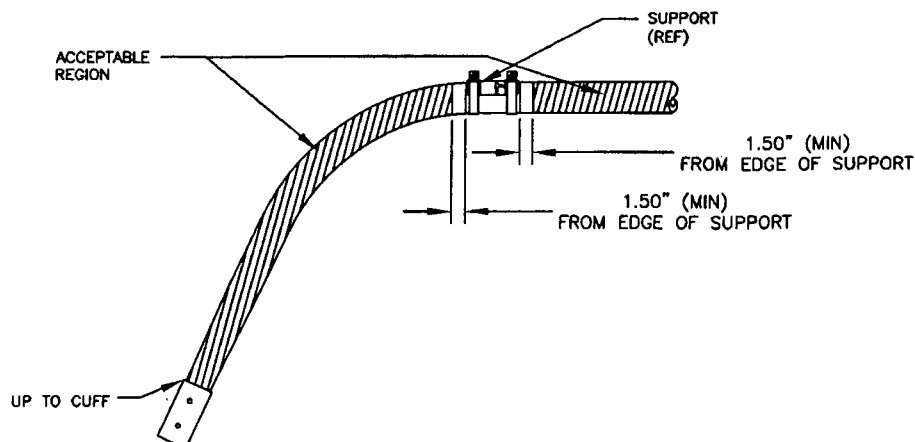
### 1.0 To apply Armor Shield

- 1) Ensure the crosstube is appropriately finished in accordance with the relevant manufacturing drawing or Instruction for Continued Airworthiness (ICA).
- 2) Mask areas around supports and cuffs per Figure 1. Abrade-paint finish in areas requiring protection using 320 grit sandpaper.
- 3) Clean/degrease surface of crosstube using Methyl Ethyl Ketone (MEK), 4105S Wash'n'Wipe Degreaser, or equivalent and wipe the surface to clean the entire area.
- 4) Apply 3 coats of Proform PF 746 or PF 746-1 to surface (apply additional coats when surface is dry, but not fully cured)
- 5) Allow 5 hours for coating to dry.
- 6) Apply 2 coats of Imron 500s Polyurethane Enamel clear + Dupont Imron Polyurethane Enamel Activator 192S (mix 3:1). Mix 15 minutes prior to application and allow 15 minutes before applying additional coats.

### 2.0 Armor Shield removal/re-application

To remove the Armor Shield coating or if damage to the coating and/or crosstube is observed during inspection.

- 1) Remove Armor Shield from the affected area using 80 grit sandpaper. To remove Armor Shield from larger areas, bead blasting has been determined to be the most effective technique.
- 2) Repair mechanical damage (within limits) to the crosstube and touch up finish in accordance with the relevant ICA.
- 3) Apply Armor Shield in accordance with Section 1.0 of these instructions.



**FIGURE 1 - ACCEPTABLE REGIONS TO BE COATED WITH ARMOR SHIELD**

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 32929

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY:

D. SHEPHERD (DE # 02)

DATE:

06.02.14

CERT. NO.:

SH03-6/SH01-9/SH01-5

ISSUE NO.:

3/3/3

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Job Number	: 32929		
Estimate Number	: 12369		
P.O. Number	:	Part Number	: D412664203A
This Issue	: 6/18/2007 S.O. No. :	Drawing Number	: DSI9326
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : LANDING GEAR	Drawing Revision	: A
Previous Run	: 32914	Material	:
Written By	:	Due Date	: 7/15/2007 Qty: 1 Um: Each
Checked & Approved By	: <u>07.06.18</u>		
Comment	: Est Rev: A New Issue 06-04-19 JLM est rev. B Per ECN 886 06.12.08 EC		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: Photocopy bluefile & type labels per PPP D412-664-203A CHG004

07.06.18

2.0	D412664203	Crosstube Aft High
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)  
 Fwd Crosstube  
 Batch: \_\_\_\_\_

3.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1  
 1-Remove tube from packaging

2-Apply Armor shield as per DSI 9326  
 A/R Armor Shield Batch: \_\_\_\_\_

REFERENCE ONLY

4.0	QC14	INSPECT SPRAY PAINT
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Comment: Inspect Spray Paint

5.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1  
 Identify and pack for shipping as per PPP D412-664-203A  
 Location: \_\_\_\_\_  
 PPP Rev: \_\_\_\_\_